

Applicant has amended claim 1 in order to clarify that the electromagnetic assembly comprises a ring case, a coil bobbin, and a connector arrangement. The coil bobbin comprises a ring member, and the coil bobbin is positioned within the ring case. Moreover, the ring case has a closed end surface, and an opening is formed through the closed end surface of the ring case, such that a portion of the ring member forms a bottom of the opening. Further, the connector arrangement comprises a body portion, and projection portion which extends from the body portion. Specifically, the opening is adapted to receive the projection portion, and the projection portion is positioned within the opening, such that an end of the projection portion engages the portion of the ring member which forms the bottom of the opening. As such, the projection portion of the connector arrangement engages a portion of the ring member. See, e.g., Appl'n, Fig. 8. Applicant believes that amended claim 1 clearly describes the subject matter which Applicant regards as the claimed invention. Therefore, Applicant respectfully requests that the Examiner withdraw the indefiniteness rejection of claims 1, 2, and 4.

3. 35 U.S.C. § 102(b)

Claims 1 and 4 stand rejected as allegedly anticipated by AAPA. "A claim is anticipated if and only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP 2131. The Office Action alleges that AAPA describes each and every element as set forth in claims 1 and 4. Applicant respectfully traverses.

As described above, Applicant has amended claim 1 in order to describe an electromagnetic assembly comprising a ring case, a coil bobbin, and a connector arrangement. The coil bobbin comprises a ring member, and the coil bobbin is positioned within the ring case. Moreover, the ring case has a closed end surface, and an opening is formed through the closed end surface of the ring case, such that a portion of the ring member forms a bottom of the opening. Further, the connector arrangement comprises a body portion, and projection portion which extends from the body portion. Specifically, the opening is adapted to receive the projection portion, and the projection portion is positioned within the opening, such that an end of the projection portion engages the portion of the ring member which forms the bottom of the opening. See, e.g., Appl'n, Fig. 8 (emphasis added.) For example, Applicant's specification describes that an electromagnetic assembly 17 may comprise a connector arrangement 15, a coil

bobbin 3, and a ring case 4. Connector arrangement 15 may comprise a projection portion 15a₃ extending from a body portion (not numbered) of connector arrangement 15. Coil bobbin 3 may comprise a ring member 1, and coil bobbin 3 may be positioned inside ring case 4. Moreover, ring case 4 may have an opening 4a formed therethrough. Specifically, opening 4a may be adapted to receive projection portion 15a₃ of connector 15, such that an end of projection portion 15a₃ may engage a portion of ring member 1. Projection portion 15a₃ subsequently may be fixed adhesively, e.g., by high frequency adhesion, ultrasonic adhesion, or the like, to the end surface of ring member 1. See, e.g., Appl'n, Page 6, Lines 7-18.

In contrast, AAPA describes an electromagnetic assembly 7 comprising a connector 5, a coil bobbin 3, and a ring case 4. Connector 5 may comprise a case 5a and a projection portion 5a₃. Coil bobbin 3 may comprise a ring member 1, and ring case 4 may have an opening 4a formed therethrough, such that ring member 1 forms a bottom of opening 4a. Opening 4a may be adapted to receive projection portion 5a₃ of connector 5, such that a gap is formed between projection portion 5a₃ and the portion of ring member 1 which forms the bottom of opening 4a. Moreover, case 5a is fixed to ring case 4 by a pair of hooks 10a, and coil bobbin 3 is fixed to ring case 4 by resin 13 poured into ring case 4. An O-ring 11, which is positioned between case 5a and the closed end of ring case 4, prevents resin 13 from leaking outside the closed end of ring case 4 through a gap formed between projection portion 5a₃ and case 5a. As such, resin 13 fills the gap between projection portion 5a₃ and ring member 1. See, e.g., Appl'n, Page 1, Lines 24-31; Page 2, Lines 16-21; and **Fig. 4**.

Nevertheless, because the gap is formed between projection portion 5a₃ and the portion of ring member 1 which forms the bottom of opening 4a, projection portion 5a₃ does not engage ring member 1 when projection portion 5a₃ is inserted within opening 4a. Thus, AAPA fails at least to describe an electromagnetic assembly in which an end of the projection portion engages the portion of the ring member which forms the bottom of the opening, as described in amended claim 1. Therefore, Applicant respectfully requests that the Examiner withdraw the anticipation rejection of amended claim 1. Claim 4 depends from amended claim 1. Therefore, Applicant respectfully requests that the Examiner also withdraw the anticipation rejection of claim 4.

4. 35 U.S.C. § 103(a)

Claim 2 stands rejected as allegedly rendered obvious by AAPA in view of Ishimaru. Nevertheless, as described above, Applicant maintains that AAPA fails at least to describe an electromagnetic assembly in which an end of the projection portion engages the portion of the ring member which forms the bottom of the opening, as described in amended claim 1. Moreover, the Office Action does not allege that Ishimaru or any other reference discloses or suggests these missing elements. Claim 2 depends from amended claim 1. "If an independent claim is non-obvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." MPEP 2143.03 (citations omitted). Therefore, Applicant respectfully requests that the Examiner withdraw the obviousness rejection of claim 2.

CONCLUSION

Applicant respectfully submits that this application is in condition for allowance, and such disposition is earnestly solicited. If the Examiner believes that an interview with Applicant's representatives, either in person or by telephone, would expedite prosecution of this application, we would welcome such an opportunity. Applicant believes that no fees are due as a result of this responsive amendment. Nevertheless, in the event of any variance between the fees determined by Applicant and those determined by the U.S. Patent and Trademark Office, please charge any such variance to the undersigned's Deposit Account No. 02-0375

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Respectfully submitted,

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MARKED-UP COPY OF AMENDMENTS TO THE CLAIMS

IN THE CLAIMS:

Please amend original claim 1, as follows:

1. (twice amended) An electromagnetic assembly for an electromagnetic apparatus comprising:

a ring member comprising a tubular spool with a pair of annular flanges projecting radially from said spool;

a coil bobbin comprising said ring member and an electrical wire, said electrical wire wound around said spool between said flanges;

a ring case comprising an annular groove, which has an open edge, said coil bobbin disposed in said annular groove, wherein said ring case has a closed end surface;

an opening formed through said ring case adjacent to [a] said closed end surface of said ring case, such that at least one portion of said ring member forms a bottom of said opening;

a connector arrangement comprising a body portion and a first projection portion extending from said body portion of said connector arrangement, wherein said opening is adapted to receive said first projection portion, and said body portion of said connector arrangement is disposed on said ring case [adjacent to said closed end surface,] such that said [connector covers said opening, wherein said connector comprises a first projection portion] projection portion is positioned within said opening, such that an end of said projection portion engages said at least one portion of said ring member; and

a first end and a second end of said electrical wire, and a first lead wire and a second lead wire of an electric circuit connected to said first and said second ends, respectively in said connector arrangement [, wherein when said first projection portion is inserted into said opening, said first projection portion engages an end surface of said ring member].